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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Chappel, R. *et al.*

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For: Leptospira pathogens

EXHIBIT B

VERSION SHOWING CHANGES

1. (Once amended) An isolated pathogenic *Leptospira* bacterium that is serologically cross reactive to the *Leptospira* strain WKID (AGAL Accession No. N95/69684) **[which belongs to serogroup Hurstbridge or serovar hurstbridge as hereinbefore defined or a derivative bacterium thereof which is serologically cross-reactive to a bacterium belonging to serogroup Hurstbridge or serovar hurstbridge]**.
2. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 1, wherein said bacterium grows in media containing 8-azaguanine and at a temperature in the range from about 13°C to about 37°C **[exhibits the growth characteristics of *Leptospira* strain WKID (AGAL Accession No. N95/69684) or *Leptospira* strain BUT6]**.
3. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 2, wherein said bacterium grows **[is capable of growing]** in media containing at least 100 µg/ml 8-azaguanine.
4. (Twice amended) The isolated pathogenic *Leptospira* bacterium according to claim 2, wherein said bacterium grows **[is capable of growing]** at temperatures in the range from about 13°C to about 37°C.
5. (Twice Amended) The isolated pathogenic *Leptospira* bacterium according to claim 1, wherein said bacterium is a pathogen that infects **[which is capable of infecting]** a mammal selected from the group consisting of: human, livestock animal, and companion animal.
6. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium infects **[is capable of infecting]** pigs.
7. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium infects **[is capable of infecting]** humans.
8. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium infects **[is capable of infecting]** bovines.
9. (Twice amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium produces **[is capable of producing]** the symptoms of leptospirosis in a human or other animal which it infects.
10. (Twice amended) The isolated pathogenic *Leptospira* bacterium according to claim 1, wherein said bacterium induces **[is capable of inducing]** reproductive disease.
11. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 10, wherein the reproductive disease induced by said bacterium comprises a lower rate of farrowing in an infected animal compared to a non-infected animal **[comprises reduced farrowing]**.

12. The isolated pathogenic *Leptospira* bacterium according to claim 10, wherein the reproductive disease induced by said bacterium comprises fetal [foetal] death *in utero* or spontaneous abortion.
13. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 10, wherein the reproductive disease causes the [induced by said bacterium produces an increased] weaning-to-mating period for [in] the offspring of an infected animal to be longer than for the offspring of a non-infected animal.
15. (Twice amended) The isolated *Leptospira* bacterium according to claim 1, wherein said bacterium further contains nucleic acid having a nucleotide sequence that [which] is at least about 80% identical to a [the] nucleotide sequence selected from the group consisting of SEQ ID NOs: 1-2, 4-7, and a complementary nucleotide sequence thereto.
16. (Twice amended) The isolated *Leptospira* bacterium according to claim 1, wherein said bacterium further comprises a rRNA gene having a nucleotide sequence selected from the group consisting of: (i) a nucleotide sequence which is at least 80% identical to SEQ ID NO: 4[.]; (ii) a nucleotide sequence which is at least 80% identical to SEQ ID NO: 5 [.]; and (iii) a complementary nucleotide sequence to (i) or (ii) [thereto].
17. (Twice Amended) The isolated *Leptospira* bacterium according to claim 16 wherein the rRNA gene sequence comprises a nucleotide sequence which is at least 85% identical to SEQ ID NO: 7 [or a homologue, analogue or derivative thereof] or a complementary nucleotide sequence thereto.
19. (Twice Amended) The isolated pathogenic *Leptospira* bacterium according to claim 1 having the characteristics of the microorganism deposited under AGAL Accession No. N95/69684 [or which is serologically cross-reactive thereto].
20. (Amended) An isolated *Leptospira* bacterium consisting of *Leptospira* strain WKID (AGAL Accession No. N95/69684) [deposited under AGAL Accession No. N95/69684].
124. (Once amended) The isolated pathogenic *Leptospira* bacterium [pathogen] of claim 1, wherein said bacterium [isolated pathogenic *Leptospira* pathogen consists of an] is a non-infectious or attenuated bacterium [form of said isolated pathogenic *Leptospira* pathogen].
125. (Once amended) The isolated pathogenic *Leptospira* bacterium [pathogen] of claim 124 wherein said attenuated bacterium [form] consists of a killed isolated bacterium [pathogenic *Leptospira* pathogen].
126. (Once amended) The isolated pathogenic *Leptospira* bacterium [pathogen] of claim 124 in combination with a pharmaceutically-acceptable carrier or diluent.